

US-AEP Vietnam FY 2005 Work Plan

I. Country Strategy

Background

Vietnam has experienced dramatic changes in its transition from a centrally planned to a market-oriented economy in 1986. Over the decade, the country has made remarkable progress in reducing poverty – from 58% in 1993 to 29% in 2002 – one of the sharpest declines of any developing country. During this period, Vietnam sustained over 8% GDP growth per annum while the industrial sector grew at approximately 14% per annum.

Despite a devastating war for national independence, the population of Vietnam has tripled from 25 million to 80 million over the past 50 years, making Vietnam one of the most densely populated countries in Asia. Since the early 1960s, refugees and others seeking economic opportunities have migrated from rural to urban areas, thereby overwhelming antiquated infrastructure and limited public services. Today, Vietnam's urban population grows at a staggering 4.5% per year. Overcrowding, unplanned land use (including heavy industries located proximal to agriculture and residences), traffic congestion, and polluted waterways are the most visible signs of the urban infrastructure overload.

Vietnam's explosive economic growth has come at the expense of natural resources, biodiversity and environmental quality of water and air, particularly in densely populated coastal plains. These environmental challenges pose opportunities for US-AEP assistance in Vietnam:

- The capacity of environmental institutions remains relatively weak at national, provincial and local levels. Authorities have recently reorganized environmental agencies, but limited financial resources, skills and organizational management continue to hinder effective environmental governance.
- Major cities in Vietnam are increasingly suffering from air pollution. Since traffic congestion outpaces the expansion of roads, pollution problems could get much worse unless improved air quality management and cleaner fuel/vehicle standards are introduced.
- Municipal water and sanitation systems are overburdened or non-existent. Non-governmental alternatives such as community participation, privatization of public services, and corporate environmental stewardship create alternatives for cleaner and healthier cities.
- Industrial facilities operate with substandard environmental management systems and within a weak regulatory framework. Industrial wastewater is oftentimes discharged untreated into sewer drains while few if any alternatives to properly dispose of toxic and hazardous wastes are available to industrial managers.
- Coastal ecosystems that support cities with food and water are being degraded by root causes stemming from the urban core, such as coastal tourism, shrimp aquaculture, and oil/gas development. In addition, these sectors, which are driven by the global market, come with significant social and environmental impacts to ecologically sensitive areas.

Decision-makers in Vietnam are seriously challenged with how to balance economic development and environmental protection. For economic development to be truly sustainable, environmental concerns must be incorporated into investment planning systems. This requires vision and support. Under these circumstances, Vietnam has requested external assistance to strengthen environmental policy and governance, improve environmental conditions, and more efficiently manage limited resources.

Vietnam Country Strategy

Since 1999, US-AEP has been working in Vietnam to assist government agencies, non-governmental organizations and private sector interests to solve key sustainable development challenges. To achieve this objective, US-AEP/Vietnam identifies in-country environmental leaders and creates partnerships with US and Asian counterparts, primarily through exchanges, workshops, small grants, and short-term technical assistance. Capitalizing on the flexibility inherent in US-AEP programming, US-AEP/Vietnam designs and implements activities that are responsive, timely and adaptive. More often than not, US-AEP coordinates with other bilateral and multilateral donors (e.g. World Bank, ADB, Belgium, Canada, Denmark, Swiss).

The Goal of US-AEP is *Quality of Life for People in Asia Improved*.

The Strategic Objective of US-AEP is *Cleaner Cities and Industries in Asia*.

In Vietnam, principal US-AEP implementing partners include USEPA, NOAA, Louis Berger (the “TSSC”), PADCO, ICMA, IIE, CSG, and TAF. During FY05, US-AEP/Vietnam will focus on continuing support for five activities targeting the three Intermediate Results (IRs) of US-AEP:

- 1. Improved Environmental Governance**
- 2. Improved Urban Management**
- 3. Improved Industrial Management**

US-AEP support in FY05 has been consolidated and streamlined to focus on activities aimed to improve urban air and water quality. Since FY05 marks the final year of the *Cleaner Cities and Industries* Strategic Objective, program support focuses on implementing and closing-out a US-AEP/Vietnam’s current activities by September 2005. In FY06, a new US-AEP Strategic Objective is under development, focusing on improved water access, air quality and governance.

1) Improved Environmental Governance

Strengthening environmental law and enforcement remains a central challenge for Vietnamese policymakers. Technical, institutional, capacity and funding limitations prevent Vietnam’s national and provincial agencies from promulgating enforceable standards, and monitoring and enforcing compliance. Despite on-going efforts to reorganize environmental institutions and develop improved policy frameworks, much work remains in developing an effective regulatory framework that will address rapid urbanization, population growth, and industrial pollution. US-AEP/Vietnam’s strategy for strengthening environmental governance has been to share with enlightened leaders innovative approaches and best international practices that leverage economic incentives and embrace community participation.

Creating pollution charge programs will enable the government to link revenue generation to industrial growth, creating new opportunities for environmental investments in technology upgrades and urban pollution systems through national- and provincial-level revolving funds. Beginning in 2002, US-AEP/Vietnam worked with national-level agencies to support the establishment of the Vietnam Environmental Trust Fund, promulgate new pollution charge degree and circular, and develop an action plan for a pilot pollution charge program in Hanoi. In FY05, US-AEP will continue this work, in part by focusing on support for the establishment of a pollution charge program in Hanoi that would link with national- and city-level funds, therein providing resources for use in strengthening institutional capacity and private sector investment in the environment, and sharing these lessons to stimulate replication in other cities in Vietnam.

Water is the natural resource most critical to poverty reduction in Vietnam and the pollution sink that has greatest impact on the health and livelihoods of Vietnamese citizens. To strengthen MoNRE’s

institutional capacity, US-AEP will work with ADB and Danida to support a decision-making framework for determining sustainable yields from water resources in Vietnam. This provides a foundation from which allowable pollution loads can be assessed and pollution charge instruments developed. In this way, the decision-making framework directly supports MoNRE as the institution responsible for devising pollution charges for natural resources in Vietnam.

Promoting citizen and community participation in environmental management provides additional resources for compliance monitoring, resource protection and restoration, and awareness raising. By catalyzing community and private sector involvement, US-AEP/Vietnam has created a range of activities in community participation that address water pollution, solid waste management and coastal zone management. While catalyzing stakeholder support is one component of these projects, each has a specific technical focus and plan for strengthening agency capacity for increased citizen and community involvement and facilitating greater integration and cooperation between line agencies for improved environmental governance.

In 2005, US-AEP will support improved environmental policy and governance through specific activities that promote economic incentives, resource planning and citizen participation. While each project aims at protecting a specific resource or city, policy and planning approaches developed by local partners in cooperation with U.S. or Asian counterparts are meant as pilots that can be expanded and replicated in Vietnam and throughout the region.

US-AEP will support Improved Environmental Governance through the following activities:

- (1) Improved Environmental Policies and Institutions*
- (2) Promoting Restoration of Tan Hoa-Lo Gom Canal in HCMC: Strengthening Capacity to Implement Community-based Environmental Management*

2) Improved Urban Management

Vietnam's steady urbanization and industrialization fuels an unplanned and largely unregulated growth of factories, vehicles and households in densely populated and sprawling urban areas. Untreated industrial effluents, increasing traffic and roadside air pollution, and rising incidences of respiratory illnesses among children and the elderly are symptoms of Vietnam's rapid urbanization.

USAID/Vietnam recognizes the far-reaching benefit of promoting economic growth and protecting human health, social and environmental conditions. To improve the quality of life in urban areas, US-AEP has supported programming for clean air, solid waste management and community participation. US-AEP has provided support for Resource Cities Partnerships between Hue-Honolulu and Hai Phong-Seattle, strengthened the legal framework for socialized/privatized solid waste management in HCMC, and developed a pilot project for eco-tourism certification on Cat Ba Island, a proposed UNESCO Man and Biosphere Reserve in Hai Phong City.

In 2005, US-AEP/Vietnam will support a "systems-based approach" to fuel quality strategic planning in Vietnam, one that involves a variety of stakeholders working together to improve air quality, automotive emissions and fuel quality. More specifically, US-AEP will provide targeted technical assistance to Vietnam Register, Vietnam Standards Center and PetroVietnam to develop a Road Map for Euro 3 standards for new vehicles and motorbikes, gasoline and diesel imports, and fuels to be produced by Vietnam's first two refineries. US-AEP will also support national and city-based stakeholder processes so that automobile manufacturers, fuel importers/retailers, and consumers are supportive of the new standards and are aware of the linkages between stricter standards and improvements in air quality and human health.

Oil and gas is the largest export earning industrial sector of the Vietnamese economy. With over 10,000 vessels navigating up and down the Saigon River annually, maritime oil spills frequently occur. These spills affect the livelihoods of local fishers, the regional tourism economy, and the

health of ecologically sensitive habitats of the Can Gio Biosphere Reserve. At the request of the People's Committee of Vung Tau City and PetroVietnam, US-AEP is partnering with NOAA's Office of Response and Restoration and the US Coast Guard Gulf Strike Team to strengthen human and institutional capacity of local agencies and port facilities to plan for and respond to oil spills in the Saigon River Estuary.

US-AEP will support Improved Urban Management through the following activity:

(3) *Clean Air and Fuels*

(4) *Improved Oil Spill Contingency Planning in Saigon River Estuary*

3) Improved Industrial Management

With the adoption of the market economy (*Doi Moi*) in 1987 and the commencement of the US-Vietnam Bilateral Trade Agreement in 2001, a significant proportion of Vietnam's economic growth relies upon foreign trade and foreign direct investment. Export-driven sectors such as oil/gas, textiles/footwear, and chemicals grew at 20% per annum over the past decade. Meanwhile, global market pressures are influencing the private sector, namely multinational corporations, to adopt stricter environmental management systems to improve the health and safety of workers and the protect environment for neighboring communities.

Within this emerging trade and investment environment, the promotion of state-owned enterprises (SOEs) remains a government priority. While much has been done to reform SOEs to become more independent and economically viable within the global market, SOEs contribute over half of industrial GDP in Vietnam. In light of these developments, US-AEP/Vietnam formed a strategic partnership with the Ministry of Industry (MOI) to support their efforts to promote sustainable development in highly polluting industries such as the chemical, textile, and oil/gas sectors.

Since its establishment, US-AEP/Vietnam has promoted improved industrial management by sharing best international practices and promoting clean environmental technologies. In recent years, this support included technical assistance for the development of national guidelines for chemical, textile and power sectors, the establishment of an independent body for "Responsible Care" in the chemical industry, and development of a partnership between NIKE, Texas Tech University, and Tomas Basil University in the Czech Republic to develop new techniques for recycling scrap leather waste from the athletic footwear industry and re-processing it as fertilizer.

Since 2001, and subsequent to the signing of the Stockholm Convention on Persistent Organic Pollutants by the US and Vietnam, US-AEP and US-EPA have been working to build the capacity of Vietnam's environmental agencies and heavy industries to classify, store, dispose, transport, and treat hazardous wastes. These efforts have resulted in the development of Vietnam's first hazardous waste treatment facility (in Ben Hoa).

In FY05, US-AEP will consolidate industrial management programming to support proper management and disposal of hazardous wastes, particularly Persistent Organic Pollutants (POPs). These efforts will focus on supporting Vietnam EPA's first permitting process for the incineration of pesticides and hazardous wastes in cement kilns and improved environmental management planning for the handling, treatment and disposal of PCBs in the power sector.

US-AEP will support improved industrial management through:

(5) *Proper Management and Disposal of Hazardous Wastes*

C. Relationship to USAID and other Donor Programs

Under the FY2001-2003 Management Framework for Vietnam, USAID has three strategic objectives in Vietnam that are of high priority to the Government of Vietnam (GVN):

- Accelerated transition to a more open market-based economy
- Improved access to services for selected vulnerable groups
- Improved sustainable urban/industrial environmental management

The US-AEP program is the foundation of the third USAID/Vietnam strategic objective: ***improved sustainable urban/industrial environmental management***. This objective is consistent with the U.S. Mission Performance Plan (MPP) for Vietnam strategic goal ***of improved health, education, and environment for the global population***. US-AEP assists the GVN to develop sound environmental policy and to close the gap between policy and execution. US-AEP's unique public-private partnership approaches have also introduced environmental technologies for industry and increased the competitiveness of Vietnamese products by introducing best international environmental practices and voluntary guidelines for environmental management.

To achieve its immediate results, US-AEP/Vietnam coordinates closely with the World Bank, Asian Development Bank (ADB), Danida, Swiss Development Corporation (SDC), Belgium CTA, and Vietnam-Canada Environment Program (VCEP) among others. This is a proven formula that leverages US-AEP's limited resources to achieve greater development impact.

In FY05, US-AEP/Vietnam will also develop stronger linkages with US-AEP programs in India, Indonesia, the Philippines, Thailand, and Sri Lanka. These regional linkages will serve to greater enhance knowledge and share lessons among our Asian partners in air quality management, community-based environmental management, and hazardous waste management.

D. Strategy Development Process

The FY05 US-AEP/Vietnam Work Plan activities were developed during July-August 2004 based on extensive discussions between USAID, US-AEP implementing partners, and GVN counterparts in Hanoi and HCMC. The Work Plan has been reviewed by the USAID/Vietnam Country Manager in Hanoi and the US-AEP Regional Coordinator in Bangkok and subsequently refined by the US-AEP/Vietnam Country Program Manager in October 2004.

F I N A L V E R S I O N

Project	Project Purpose
1. Improved Environmental Policy and Institutions	Strengthen the institutional capacity of national and provincial agencies to develop and enforce environmental protection measures through sharing of best international practices
2. Strengthening Capacity to Implement CBEM in HCMC	Strengthen capacity of local government agencies to implement and promote community-based environmental management programs and reduce pollution loads in target communities
3. Clean Air and Fuels	Improve urban air quality and reduce toxic emissions from mobile sources of pollution through the adoption of stricter vehicle emissions and fuel standards
4. Improved Oil Spill Contingency Planning in Saigon River Estuary	Strengthen capacity of provincial agencies, ports and oil companies to plan for and respond to oil spills in Saigon River
5. Proper Management and Disposal of Hazardous Wastes	Strengthen the capacity amongst agencies and industries to properly manage and disposal of toxic hazardous wastes, particularly pesticides and PCBs

II. Activities

1. Improved Environmental Policies and Institutions

Primary Program Area:

- IR1: Improved Environmental Governance
- Sub-IR: Advocacy and Awareness Expanded
- Sub-IR: Water Governance and Other Enabling Conditions Improved
- Sub-IR: Sharing of Regional Best Practices Improved

Implementing Partners:

- US-AEP: USAID, PADCO, TSSC, TAF, EPSG
- In-country partners: Department of Water Resources Management (DWRM) of the Ministry for Natural Resources and Environment (MoNRE), Hanoi Department of Natural Resources and Environment (DoNRE)
- International partners: ADB, Danida, Vietnam-Canada Environment Program (VCEP)

Description: Since its establishment, US-AEP/Vietnam has worked collaboratively with the Ministry of Natural Resources and Environment (MoNRE) as part of the program to strengthen environmental institutions. With responsibility for the management of land, water, minerals, and the environment, MoNRE has many human resource and institutional challenges that need be addressed before it can implement its mandate effectively.

US-AEP began its institutional strengthening support to MoNRE by supporting the establishment of the Vietnam Environmental Trust Fund in 2002 and subsequently the development of a newly promulgated pollution charge decree and circular. In 2004, US-AEP supported Hanoi DoNRE to develop an action agenda to pilot the pollution charge program and upgrade the environmental fund mechanism. There is now an opportunity to build on the lessons from this experience and to continue to develop the skills and resources required for an effective pollution charge framework for natural resources, linked to an environmental fund for management of these resources.

Water is the natural resource most critical to poverty reduction in Vietnam and the pollution sink that has greatest impact on the health and livelihoods of Vietnamese citizens. To strengthen MoNRE's institutional capacity, US-AEP will support the development of a decision-making framework for determining sustainable yields from water resources in Vietnam. This provides a foundation from which allowable pollution loads can be assessed and pollution charge instruments developed. In this way, the decision-making framework directly supports MoNRE as the institution responsible for devising pollution charges for natural resources in Vietnam.

Similarly, the proposed activities provide the foundation to support MoNRE as it debates and explores the introduction and use of environmental funds as an instrument for managing natural resources in Vietnam. Because water is a tangible resource with existing user-pays mechanisms it is more likely to be a suitable resource for development of polluter-pays mechanisms such as pollution charges and environmental funds in Vietnam.

Groundwater is an important source of freshwater in Vietnam, particularly for domestic water supply. In critical areas in the Red River and Mekong River Deltas, groundwater is exploited beyond the recharge capacity, resulting in falling water tables. This in turn is causing land subsidence and saline intrusion which in turn result in the release of naturally occurring arsenic into the groundwater and undoubtedly affect groundwater dependent ecosystems. In addition, there is increasing evidence of severe pollution of groundwater from poorly maintained sanitation systems and from waste disposal and industrial effluents.

FINAL VERSION

In 2005, US-AEP will support institutional strengthening of MoNRE for water resources by developing a decision-making framework and process for the establishment of environmental sustainable water extraction from rivers and aquifers. This decision-making framework will provide a basis to manage water resources and mitigate competing claims on the water source. The output will be incorporated into the Vietnam National Water Resource Strategy currently under development by ADB and Danida. Ultimately, it could also assist the Mekong River Commission to more effectively discuss tradeoffs between economic development within member states and the overall health of the Mekong River Basin.

In Hanoi, US-AEP will continue to provide technical guidance on the pilot pollution charge program. Through technical assistance and stakeholder consultations, Hanoi DoNRE and US-AEP will create an action agenda that will result in fees that are based on actual pollution loads and strengthened operation of the Hanoi Environment Fund, thereby enabling the effective reinvestment of revenues generated by the pollution charge program. Activities will include a national workshop with other DoNREs and visit to Malaysia to observe implementation of pollution charge system. Core focus areas will be implementation of new decrees on environmental trust funds (Decree 67) and environmental penalties (Decree 121).

Purpose: *To strengthen the institutional capacity of MONRE to develop and enforce environmental protection measures through sharing of best international practices*

Implementation Activities:

- a. **PADCO** – Targeted technical assistance and coordination support to Hanoi DoNRE and MoNRE on key economic instruments and compliance/enforcement initiatives.
- b. **EPSG** – Technical exchange on financial mechanisms to Malaysia, and expert participation in stakeholder workshop.
- c. **TAF** – Grant to support stakeholder consultations and raise awareness of Hanoi pollution charge program.
- d. **TSSC Grant** - Support to develop a decision-making framework for the establishment of environmental sustainable water extraction from rivers and aquifers.
- e. **STTA** – Support to conduct national-level water demand analysis, assess environmental requirements for rivers and groundwater systems, and undertake risk analysis in water allocation decision-making.
- f. **EPSG** – In-country participants to attend two workshops: one to build consensus on framework selection for water allocation and second to present findings.
- g. **EPSG** – Study exchange for decision makers and technical staff to learn best regional practices in water resources management.

Expected Results:

- Pollution charge program with linkages to environmental fund piloted in Hanoi (FY05)
- Best practices of the pilot pollution charge program shared with other provinces (FY05)
- Pollution charge/trust fund program incorporated into amended Law on Environmental Protection (FY05)
- National Water Resources Strategy (NWRS) strengthened (FY05)
- Foundation for the water licensing system in Vietnam developed (FY05)
- Strengthened capacity of MoNRE to assess water allocations in river basins (FY05)

2. Promoting Restoration of the Tan Hoa-Lo Gom Canal in HCMC: Strengthening Capacity to Implement Community-based Environmental Management

Primary Program Area:

IR1: Improved Environmental Governance
Sub-IR: Advocacy and Awareness Expanded
Sub-IR: Water Governance and Other Enabling Conditions Improved
Sub-IR: Sharing of Regional Best Practices Improved

Implementing Partners:

US-AEP: USAID, CSG, TAF, PADCO, ICMA, EPSG
In-country partners: HCMC DoNRE's Environment Protection Agency (HEPA), Water Environment Technologies Institute (WETI), People's Committees of District 4, 6 and 11
International partners: Portland State University, Belgian CTA/PMU 415, World Bank

Description: Urbanization and population growth put tremendous pressure on drainage and sewerage systems in Ho Chi Minh City (HCMC). The city's many canals and waterways have become dumping sites for domestic and industrial waste, which pose significant health risks to the local populations and particularly the urban poor. The Tan Hoa-Lo Gom Canal (THLG) Canal typifies Vietnam's urban environmental challenge and is the centerpiece of a multi-donor initiative to improve the drainage, sanitation, and quality of life along a heavily polluted waterway in HCMC.

Governments worldwide are working to develop new laws and methods to strengthen environmental governance. These efforts focus on increased access to information, improved public participation in government decision-making, and greater access to justice in enforcing environmental governance requirements. In addition, governments are also devising new strategies and methods for working collaboratively with communities, citizens, environmental groups and business leaders to leverage community pressure and market forces to meet environmental challenges.

Beginning in 2003, US-AEP began supporting local stakeholders – including the National University of HCMC, a local NGO (WETI), and local People's Committees in District 11 – to introduce a model Community-based Environmental Management (CBEM) process whereby government, citizens, and private sector leaders shape solutions that ensure environmental protection, social development and economic prosperity. Core activities include direct voluntary participation in local planning and resource restoration efforts, where a range of stakeholders are convened to develop creative solutions to local environmental problems via consensus-based approaches that integrate environmental, social and economic objectives. CBEM is particularly appropriate in countries that have weak or under-resourced regulatory programs and look to citizen and community involvement to complement government resources.

In 2004, with implementation support from TAF, PADCO and CSG/Portland State University (PSU), community leaders in two Wards of District 11 began implementation of an action agenda, which included targeted solid waste clean-up activities, awareness raising campaigns, and a cleaner production pilot demonstration. In addition to improvements on the ground, a key project outcome was the creation of a platform where government agencies, businesses and communities could develop collaborative solutions. The project leveraged the participation of NIKE and the Dam Sen Water Park and was celebrated by the US Consulate in HCMC for its contributions on Earth Day 2004. US-AEP also facilitated linkages with counterpart projects in the Philippines and Thailand and shared lessons with Thai, Lao, Cambodian and Vietnamese representatives from the Mekong River Commission. As a result of these efforts, the People's Committee of HCMC now recognizes the importance the CBEM process for restoring the environmental quality of the THLG canal and other polluted urban waterways.

In this second phase of project, US-AEP will strengthen the capacity of the new HCMC Environmental Protection Agency (HEPA) in the Department of Natural Resources and Environment

(DoNRE) to engage with local stakeholders in reducing solid waste and other pollution loads on the THLG Canal in Districts 6 and 11 using the CBEM process. A CSG grant to Portland State University will focus on institutional strengthening of HEPA while a TAF grant will focus on community-focused activities. PADCO and EPSG will support the sharing of lessons with a regional counterpart project Lake Laguna in the Philippines. ICMA will continue to support the HCMC People's Committee and DoNRE to improve the legal framework for socialized solid waste management and to demonstrate a bid and tendering process for non-public waste collection services; these latter activities have supported waste management services in District 4 and 5 and lessons will be replicated by DoNRE in all 20 districts of HCMC.

Purpose: *To strengthen capacity of local government agencies to implement and promote community-based environmental management programs and reduce pollution loads in target communities*

Activities:

- a. **EGAT/MSW/TAF (FY03)** – Support for small grants to HEPA and local organizations to implement on-the-ground CBEM activities.
- b. **CSG (FY04)** – Phase II grant to Portland State University/Oregon Initiative to strengthen HEPA's capacity to promote, implement and sustain CBEM process. \$150,000 (plus \$150,000 PSU/Oregon Initiative matching funds)
- c. **PADCO** – Partnership coordination and implementation support.
- d. **ICMA (FY04)** – Technical support for improving the legal framework for socialized solid waste management in HCMC including demonstration bid and tendering process for non-public collection services.
- e. **EPSG** – Study exchange for government and community leaders to share lessons on CBEM at Lake Laguna in the Philippines.

Expected Results:

- Improved capacity in HCMC DoNRE/HEPA to develop, promote and replicate CBEM process with local communities, businesses and other agencies (FY05)
- Community-led ecological restoration and monitoring activities undertaken (FY05)
- CBEM process adopted by HCMC People's Committee and HEPA as a model for engaging complex environmental issues at a watershed level (FY05)

3. **Clean Air and Fuels**

Primary Program Area:

IR 2: Improved Urban Management

Sub-IR: Air Governance and Other Enabling Conditions Improved

Sub-IR: Sharing of Regional Best Practices Improved

Implementing Partners:

US-AEP: USAID, TSSC, EPSG

In-country partners: Vietnam Register (VR), Vietnam Standards Center (STAMEQ), PetroVietnam, Vietnam Automobile Manufacturers Association (VAMA)

International partners: Clean Air Initiative in Asia (CAI-Asia), East West Center (Honolulu), SwissContact

Description: The major cities in Vietnam, especially HCMC and Hanoi, experience serious air pollution problems, with motor vehicles being a principal cause. Levels of particulate matter are especially high. Pollution controls on vehicles and the specifications on fuels used in these vehicles are very weak at the present time with the notable exception of the rapid phase out of leaded gasoline, which took place in 2001. Because the vehicle population continues to grow rapidly, and congestion in cities is outpacing the growth in the available road space, it is expected that the pollution problem could get much worse in the future unless pollution control efforts are substantially upgraded.

Since 2000, US-AEP has provided leadership toward better air quality management in Vietnam. Working in partnership with the World Bank and Ford Motor Company, US-AEP supported Vietnam's successful phase-out of leaded gasoline in July 2001. US-AEP also provided technical support for air quality monitoring in Ho Chi Minh City (HCMC) through a grant to California Air Resources Board (CARB) and, in 2002, developed a white paper entitled *Before the Clouds Gathered: Protecting Clean Air in Vietnam*. US-AEP has also partnered with ADB's Clean Air Initiative in Asia (CAI-Asia) to strengthen policy coordination for improved air quality, particularly with regards to mobile sources of pollution. US-AEP has staffed a Clean Air Coordinator for Vietnam, leveraged financial support from CAI-Asia and the Health Effects Institute and brought Hanoi, HCMC and Hai Phong on as members to CAI-Asia.

In 2004, US-AEP supported useful technical support, training and consensus-building workshops to Vietnam Register (VR), the Vietnam Standards Center (STAMEQ) and other agencies for the purpose of reducing levels of toxins such as benzene and sulfur in fuels through support for stricter vehicle emissions and fuels quality standards. Through the support of TSSC/Vietnam's Clean Air Coordinator, based in Hanoi, a stakeholder working group was formed to strengthen coordination among governmental agencies, research institutions and donors involved in the reduction of mobile source air pollution. These efforts have assisted Vietnam to develop a more "systems-based approach" to fuel quality strategic planning, one that involves a variety of stakeholders working together to improve air quality, automotive emissions and fuel quality.

In 2005, US-AEP will bolster its support for clean air and fuels in Vietnam by strengthening the capacity of stakeholders to improve air quality management in the following areas: fuel quality standards; vehicle emissions standards (including automobiles, buses/trucks, and motorbikes); improved vehicle inspection and maintenance; leapfrogging technologies for refineries; and improved air quality monitoring. A series of national workshops will be organized under these topics with technical support from TSSC to share international best practices and facilitate a participatory dialogue between government agencies, industry, and the public. The workshops will contribute to achieving an informed consensus among all stakeholders for the development of a "road map" for revised fuel quality specifications and vehicle emission standards and enhanced understanding of the links between mobile source air pollution and public health. US-AEP/Vietnam will continue to collaborate with CAI-Asia and will develop linkages with US-AEP programs in Thailand and India to share best practices in air quality management.

Purpose: *To improve urban air quality and reduce toxic emissions from mobile sources of pollution through the adoption of stricter vehicle emissions and fuel standards*

Activities:

- a. **TSSC Grant (FY04)** – Support CEETIA to train staff and monitor roadside air pollution in Hanoi using mobile Air Quality Monitoring Station.
- b. **EPA** – Technical assistance on air quality monitoring, standards setting, and other issues related to improved air quality management.
- c. **EPSCG** – In-country delegates to attend 5-day workshop in Hanoi on QA/QC in monitoring air quality of both fixed and mobile monitoring station.
- d. **TSSC Grant** – Support VR to develop a roadmap for achieving EURO 3 standards in new vehicles and refineries.
- e. **STTA** – Technical support to Vietnam Register to develop methodology for conformity to Euro standards and gaps, undertake a cost-benefit analysis, and provide policy recommendations to expedite the adoption of and conformity to Euro standards.
- f. **EPSCG** – Local participants to attend a one-day workshop in Hanoi on the road map for Euro 3 standards in new vehicles and refineries.
- g. **STTA** – Technical support to assist with Vietnam Standards Centre (VSC) to tighten unleaded gasoline and diesel fuel quality specifications for Vietnam.
- h. **EPSCG** – International expert to facilitate workshop on draft gasoline and diesel fuel specification strategy and the process to achieve EURO 3 standards by 2010.
- i. **TAF** – Support to organize stakeholder workshops in Hanoi and HCMC and disseminate public information for tightened gasoline and diesel fuel specification standards.
- i. **EPSCG** – Exchange for Vietnamese refinery experts attend World Fuels Conference held November 8-10 in Singapore.
- j. **EPSCG** – Exchange for Vietnamese air quality experts to attend CAI-Asia's Better Air Quality Conference 6-8 December in Agra, India.

Expected Results:

- Adoption of tightened gasoline and diesel standards in 2005 (FY05)
- Adoption of "Roadmap" outlining a schedule of tightening fuel standards (FY05)
- Increased stakeholder and public support for the new fuel standards (FY05)
- Policy options for strengthened and tighter vehicle emissions standards adopted (FY05)
- Commitment by agencies, vehicle industry and gas retailers to implement Roadmap to Euro 3 standards (FY05)
- Decision-makers are better informed of roadside air quality levels in Vietnam (FY05)

4. Improved Oil Spill Contingency Planning in Saigon River Estuary

Primary Program Area:

IR1: Improved Urban Management

Sub-IR: Water Governance and Other Enabling Conditions Improved

Sub-IR: Sharing of International Best Practices Improved

Implementing Partners:

US-AEP: USAID, NOAA, PADCO

In-country partners: Vung Tau DoNRE, Research and Development Center for Petroleum Safety and Environment (RDCPSE) of PetroVietnam, Saigon and Vung Tau Port Authorities, Institute for Tropical Biology

International partners: U.S. Coast Guard

Description: The Saigon River extends from navigable waters just north of Saigon Port, through the mangroves of the Can Gio Biosphere Reserve, to the coastal beaches of Vung Tau Town. Following a major oil spill in Vung Tau Harbor, which services the nation's petroleum industry, provincial authorities requested support from USAID to better prepare for and respond to coastal oil spills. Over 10,000 vessels navigate the Saigon River per year, an area that supports aquaculture, tourism and sensitive habitats. In the first half of 2003 alone, four significant oil spills occurred.

In 2002, US-AEP and National Oceanic and Atmospheric Administration (NOAA), Office of Response and Restoration (ORR), Hazardous Materials (HazMat) Response Division initiated a project with PetroVietnam (the primary oil spill responder) and Vung Tau DOSTE. (The NOAA/ORR/HazMat office in Seattle, WA is the scientific coordination headquarters for all coastal oil spills that occur in the U.S. and its island territories.)

In 2003, NOAA completed a scoping visit to HCMC/Vung Tau to initiate the partnership, followed by a visit by PetroVietnam and Vung Tau DoNRE to Canada and the U.S. to share experience on oil spill contingency planning, and take part in specialized training. In 2004, US-AEP and NOAA expanded cooperating partners to include port authorities and oil companies as a first step in strengthening inter-agency and private sector coordination in responding to oil spills.

In 2004/5, US-AEP, NOAA and Vietnamese partners will facilitate a stakeholder process to develop an effective oil spill contingency plan and process for Saigon River Estuary. This will include improvement of draft oil spill contingency plans for Vung Tau Province prepared by RDCPSE/PetroVietnam, establishment of an interagency emergency response command structure, and development of oil spill contingency protocols for deployment, communication, and coordination of public/private resources and actions. The project will also incorporate geographical response planning into the oil spill contingency plan and process, including the establishment of sensitive area mapping and forecast projections for variable weather changes, and in particular the identification of ecologically sensitive habitats.

Activities will include: (1) study visit by Vietnamese partners to Fort Lauderdale/Miami and New Orleans/Baton Rouge/Mobile to meet with federal, state, and local governments, private sector oil spill cooperatives and companies to discuss interagency, multi-jurisdictional, and public-private sector collaboration in oil spill contingency planning and response; (2) training session to build the capacity of local partners on oil spill contingency planning, establish a coordinated interagency emergency response command structure, develop geographical response plans, and establish protocols for the deployment, communication and coordination; and (3) consultative workshops in Vung Tau with local partners and key stakeholders to review the draft oil spill contingency plan, solicit inputs for improvements, and build community awareness and support for the plan.

Purpose: *Strengthen capacity of provincial agencies, ports and oil companies to plan for and respond to oil spills in Saigon River Estuary*

F I N A L V E R S I O N

Activities:

- a. **NOAA (FY03):** Technical assistance and training in regional response planning.
- b. **PADCO:** Implementation and coordination support.
- c. **EPSCG:** Support technical experts to share best practices in response planning.

Expected Results:

- Strengthened human and institutional capacity of local agencies to plan for and respond to oil spills in the Saigon River (FY05)
- Adoption of improved draft oil spill contingency plan for Vung Tau Province (FY05)
- Development of improved response systems for coastal oil spills in Vung Tau Province (FY05)

Proper Management and Disposal of Hazardous Wastes

Primary Program Area:

IR3: Improved Industrial Management
Sub-IR: Improved Adoption of Environmental Management Practices
Sub-IR: Sharing of International Best Practices

Implementing Partners:

US-AEP: USAID, US-EPA, TSSC, EPSG
In-country partners: Vietnam Environmental Protection Agency (VEPA), Ministry of Industry (MOI), Vietnam Electricity Corporation (EVN)
International Partners: Vietnam Canada Environmental Program (VCEP), Swiss Development Corporation (SDC), Holcim Cement

Description: Of all the pollutants released into the environment, persistent organic pollutants (POPs) are among the most dangerous. POPs are highly toxic to animals and humans and are characterized by their persistence in the environment, ability to travel far distances in water, and propensity to build up in food chains (bio-intensify). In May 2004 the Stockholm Convention for Persistent Organic Pollutants came into force as international law, thereby banning 12 listed POPs including Polychlorinated Biphenyls (PCBs). Both the U.S. and Vietnam are signatory nations, and in both countries significant amounts of PCBs still exist, primarily within the oil of electricity transformers and capacitors. This oil, if not managed properly, can seep into the ground and infiltrate water systems. PCBs are extremely toxic and pose highest risk to nursing infants whose mothers consume contaminated fish and people who work with PCBs.

Since 2001, US-AEP and US-EPA has been working to build the capacity of Vietnam's environmental agencies and heavy industries to properly classify, store, dispose, transport, and treat hazardous wastes. US-AEP/US-EPA have conducted a total of four introductory HazMat trainings in Hanoi, HCMC, Ben Hoa, and Danang and led three study exchanges to the US so that the Vietnam Environmental Protection Agency (VEPA) and the Ministry of Industry (MOI) can learn about best industrial management practices for hazardous wastes and viable options for the treatment, incineration and disposal of POPs. This support led to the establishment of Vietnam's first hazardous waste treatment facility.

In 2005, US-AEP and US-EPA will continue to support VEPA, MOI, and private sector stakeholders (e.g. Holcim Cement) to develop Vietnam's first permitting system, one that will initially focus on permitting of cement kilns to incinerate industrial and hazardous wastes (e.g. resins, paints, lubricant oils, pesticides, etc.) This engagement focuses on improving the understanding of co-generation technologies, establishing a sound permitting process (including performance and operating standards), and promoting a transparent inspection process.

In 2004, US-EPA, VEPA and VCEP co-sponsored a national workshop and stakeholder discussion in Hanoi as well as an extensive training program in Kansas City, USA. In FY05, US-EPA and US-AEP will continue to provide technical support to stakeholders in Vietnam on the cement kilns issue, including follow-on training for provincial-level VEPA staff and stakeholder discussions on use of cement kilns for co-generation, or incineration, as a viable alternative to disposal of hazardous wastes.

On the management side, US-AEP will continue to support the Electricity Corporation of Vietnam (EVN) and the Ministry of Industry (MOI) to properly handle, manage and dispose of PCBs. In 2003, US-AEP and ENV co-sponsored two training workshops in HCMC and Hanoi entitled PCB Management in the Power Sector, followed by an extensive study exchange to the US for technical staff who maintain and inventory transformers and power supply/distribution equipment and who work extensively with transformer oils. In FY05, US-AEP will continue to assist EVN to develop the framework for a management plan and strengthen the capabilities of their staff to properly handle, manage and dispose PCBs.

Purpose: *To strengthen the capacity amongst agencies and industries to properly manage and disposal of toxic hazardous wastes, particularly pesticides and PCBs*

Implementation Activities:

- a. **US-EPA** – To train staff of relevant agencies for the development of a preliminary permitting and inspection regime for cement kilns in Vietnam.
- b. **TSSC Grant** – Support stakeholder consultations and issuance of cement kiln permitting guideline.
- c. **TSSC Grant** – Support for PCB management plan framework and environment, health and safety training for EVN staff.
- d. **EPSCG** – Support international expert(s) and EVN staff to attend training in power transformer maintenance and develop feasibility study for PCB testing, storage and treatment facility.

Expected Results:

- Improved capacity within VEPA to develop Vietnam's first permit/inspections system, focusing on incineration of pesticides and hazardous wastes in cement kilns (FY05)
- Cement kiln co-generation approved by VEPA as a viable technology for disposal of hazardous waste in Vietnam (FY05)
- Workers at ENV trained to handle and dispose PCBs (FY05)
- Management plan framework for EVN to manage, treat and dispose PCBs (FY05)
- Feasibility study for PCB testing, storage, and treatment facility developed (FY05)